



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

23 April 2018

Mr. Benjamin Blom, Field Manager
Central Coast Field Office
Bureau of Land Management
940 2nd Ave
Marina, CA 93933

Dear Mr. Blom:

Per BLM's request, EPA has reviewed the report, "Asbestos Exposures Associated with Motorcycle Riding and Hiking on Asbestos Containing Soils: Risk of Asbestos-Related Cancer: An Update," (2016 IERF report) prepared by the International Environmental Research Foundation (IERF) for the California State Parks Off-Highway Motor Vehicle Recreation Division. As part of EPA Region 9's review, we sought input from the EPA Asbestos Technical Working Group, which is a collaborative group of nationwide EPA asbestos experts. The Clear Creek Management Area (CCMA), the focus of the IERF study, is part of the Atlas Asbestos Mine Superfund site.

As we have discussed with you and your staff, this updated report is very similar to the 2011 IERF report, with similar deficiencies in the study parameters, applied risk assessment exposure conditions, and conclusions. This updated study focused on increasing sampling frequency during the wet months of the year. Specific EPA comments to this updated report are as follows:

- 1) The 2016 IERF report sampling results confirm and support EPA's 2008 risk assessment observations and measurement for motorcycle riders. The IERF 2016 report reconfirmed the observations that it is the activity and the severity of dust generation of that activity in the asbestos containing area that creates the hazard.
- 2) The 2016 IERF results are similar to the 2011 IERF results and the 2008 EPA results. The difference is in risk assessment assumptions between EPA and IERF. IERF assumed five visits in a lifetime versus the EPA risk assumption of five visits per year over a thirty-year lifetime. The IERF study grossly underestimates the exposure.
- 3) The 2016 IERF report does not consider exposure risks for BLM Rangers, who would be tasked with patrolling the CCMA area. Exposure periods for full-time or part-time patrolling rangers would be significantly higher than for recreational riders.

- 4) The 2016 IERF report did not include the California OEHHA toxicity values, which is applicable to a site in California and is more stringent than the federal value. EPA's 2008 study utilized the OEHHA toxicity values.
- 5) The 2016 IERF report, like the 2011 IERF report, lacks a reference to the fiber counting rules, as well as the number of grids counted which impacts the ability to detect low fiber counts and determines the limit of detection. Therefore, a clear interpretation of the IERF reported results is not possible.
- 6) The 2016 IERF report, similar to the 2011 IERF report, did not conduct sampling to represent child exposures, a significant potentially exposed population based on previous BLM use surveys and the latent effects of asbestos disease being disproportionately displayed in a younger population with a breathing zone closer to the ground.
- 7) The 2011 IERF study, on which the 2016 update was based, only includes risk for rider exposure beginning at thirty years of age, without justification as to why this age group was selected. It is unstated whether the 2016 IERF report used this same age assumption. If exposure were to begin earlier in life, such as a teen or person in their twenties, there is an increased risk for mesothelioma in male and female nonsmokers due to the longer latency period.
- 8) The 2016 IERF report, similar to the 2011 IERF report, did not assess track out of asbestos fibers to the residents and cities along access routes to the CCMA.
- 9) The 2016 IERF report, similar to the 2011 IERF report, did not assess potential impacts of tracked out fibers to surface water resources. The Atlas Superfund site was initially discovered and listed on the National Priorities List (NPL) because asbestos fibers from the mine areas were transported through the California aqueduct to drinking water purveyors in the Los Angeles area.
- 10) If the goal of the activity-based sampling was to obtain realistic exposure data, it is unclear why the trailing rider was instructed to follow at a distance to reduce visible dust. If this would be an expectation of recreational park users, it is unclear how this requirement would it be monitored or enforced.
- 11) A substantiation of the 2016 IERF report statement that November through April are more reflective of traditional CCMA visitor patterns is needed. Hotter, drier months should not be discounted when estimating exposure risk and riding conditions.

In conclusion, EPA sees no need to change or modify the previous 2008 EPA activity-based risk assessment which covers more activities, presents a wider review of the results, and applies rigorous exposure assumptions and risk criteria. The IERF update reconfirmed EPA's previous observations that it is the activity and the severity of dust generation of that activity in the asbestos containing area that creates the hazard. Trailing riders were again demonstrated to have higher exposures compared to lead riders. No observable dust is not a surrogate for a lack of exposure. Additionally, significant precipitation within a week of the sampling event may reduce the potential of exposure. EPA's 2011 comments (see enclosure) on the Preliminary IERF study also apply to this 2016 IERF update.

We appreciate the opportunity to provide input on this environmental study to our federal partners, and hope our review is helpful. We recommend BLM and the California Department of Parks and Recreation also seek input from California EPA on this updated IERF study and requests to reopen the CCMA to off-road vehicle use. Please give us a call if you have any questions or need more information.

Sincerely,

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Encl:

EPA Region 9 letter to BLM dated May 12, 2011 regarding review of the *Preliminary Analysis of the Asbestos Exposures Associated with Motorcycle Riding and Hiking in the Clear Creek Management Area (CCMA) San Benito County, California*